
Summary Report

**Site Characterization and
Removal Action for
Polychlorinated Biphenyls at
Building 84A,
Investigation Area D1
Mare Island,
Vallejo, California**

Prepared for
Regulatory Agencies

October 2004

CH2MHILL
155 Grand Avenue, Suite 1000
Oakland, CA 94612



2063940
CH2M HILL

155 Grand Avenue

Suite 1000

Oakland, CA 94612

P.O. Box 12681

Oakland, CA 94604-2681

Tel 510 251.2426

Fax 510 893 8205

October 28, 2004

277085.17.30

Mr. Henry Chui
California Environmental Protection Agency
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Subject: Summary Report for the Site Characterization and Removal Action for
Polychlorinated Biphenyls at Building 84A, Investigation Area D1

Dear Mr. Chui:

Enclosed is the Summary Report for the Site Characterization and Removal Action for
Polychlorinated Biphenyls at Building 84A, Investigation Area D1, for Mare Island, Vallejo,
California.

This document was prepared by Lennar Mare Island as part of the scope of the
Environmental Services Cooperative Agreement to complete remaining environmental
work at Mare Island and in accordance with the Consent Agreement between LMI, City of
Vallejo, and DTSC.

Please submit your comments to Paul Scherbak or me at the above address or via e-mail at
Jeff.Morris@ch2m.com by November 28, 2004.

If you have any questions regarding this document, please contact me or Paul Scherbak at
(510) 587-7593.

Sincerely,

CH2M HILL

A handwritten signature in black ink, appearing to read "Jeffery C. Morris".

Jeffery C. Morris, P.E.

October 28, 2004

Page 2

Copy to (with enclosures):

Mr. Gary Riley
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Gordon Hart
Paul, Hastings, Janofsky, Walker, LLP
55 Second Street, 24th Floor
San Francisco, CA 94105-3411

Ms. Carolyn d'Almeida
U.S. EPA Region 9 (SFD 8-1)
75 Hawthorne Street
San Francisco, CA 94105

Mr. Gil Hollingsworth
Mare Island Conversion Division
City of Vallejo
555 Santa Clara Street
Vallejo, CA 94590-5934

Ms. Lea Loizos
Arc Ecology
833 Market Street
San Francisco, CA 94103

Ms. Myrna Hayes
816 Branciforte Street
Vallejo, CA 94590

Ms. Sheila Roebuck
Lennar Mare Island
690 Walnut Avenue, Suite 100
Vallejo, CA 94592

Mr. Bob Palmer
Caretaker Site Office, SF Bay
410 Palm Ave., Bldg. 1, Suite 161
San Francisco, CA 94130
(2 copies)

Additional CH2M HILL copies:

Jeff Morris
Melanie Goode
Sarah Reindel
Starr Dehn (final only)
Jim Robbins (final only)

October 28, 2004

Page 3

Copy to (without enclosures):

Ms. Beckye Stanton, Ph.D.
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

Mr. Frank Gray
California Dept. of Fish & Game
OSPR Headquarters
P.O. Box 944209
Sacramento, CA 94244-2090

Ms. Laurie Sullivan
National Oceanic and Atmospheric
Administration
75 Hawthorne Street, 9th Floor
San Francisco, CA 94105

Ms. Patricia Port
U.S. Department of Interior
1111 Jackson Street, Suite 520
Oakland, CA 94607

Mr. Mike Racette
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Ms. Carol Gaye
801 Southamptton Road, #30
Benicia, CA 94510

Mr. Kenneth Browne
109 El Camino Real
Vallejo, CA 94590

Mr. Herminio Sunga
1423 Oakwood Avenue
Vallejo, CA 94591

Mr. Adam A. Chavez
1031 Florida Street
Vallejo, CA 94590-5513

Mr. Albert T. Liff
260 American Canyon Road, Sp. 119
Vallejo, CA 94503

Mr. Gerald Karr
149 Garden Court
Vallejo, CA 94591

Ms. Diana Krevsky
133 B Street
Vallejo, CA 94590

Ms. Patricia Schader
165 Oddstad Drive, #34
Vallejo, CA 94589

Mr. James O'Loughlin
1449 Sheridan Drive
Napa, CA 94558

Ms. Paula Tygielski
456 East L Street
Benicia, CA 94510

Mr. Steven Goldbeck
San Francisco Bay Commission
50 California Street, Suite 2600
San Francisco, CA 94102

Mr. Dennis Kalson
Solano County Department of
Environmental Health Management
470 Chadbourne Road, Suite 200
Fairfield, CA 94534

Dr. Tom Charon, M.D.
Solano County Department of Public Health
275 Beck Avenue
Fairfield, CA 94533

October 28, 2004

Page 4

Copy to (without enclosures):

Mr. Donald Parker
Vallejo Fire Department
970 Nimitz Street
Vallejo, CA 94592

Albert Netto
Solano County Department of
Environmental Management
601 Texas Street
Fairfield, Ca 94533
(UST related documents only)

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Acronyms and Abbreviations

µg	micrograms
bgs	below ground surface
CA/FO	Consent Agreement/Final Order
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
cm ²	square centimeters
DTSC	Department of Toxic Substances Control
EETP	Eastern Early Transfer Parcel
IA	Investigation Area
LMI	Lennar Mare Island
mg/kg	milligrams per kilogram
Navy	United States Department of the Navy
ND	not detected
NFA	No Further Action
PCB	polychlorinated biphenyls
PRG	preliminary remediation goal
SSPORTS	Supervisor of Shipbuilding Portsmouth
TSCA	Toxic Substances Control Act
UL	Unknown Location
USEPA	United States Environmental Protection Agency

1.0 Introduction

This report provides a summary of the polychlorinated biphenyl (PCB) cleanup action at the Building 84A Unknown Location (UL)#01 on the Mare Island Eastern Early Transfer Parcel (EETP). CH2M HILL prepared this document in compliance with the Consent Agreement signed April 16, 2001 between Lennar Mare Island (LMI), the City of Vallejo, and the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) (LMI et al. 2001). The Consent Agreement specifies requirements for obtaining regulatory closure for sites of environmental concern in a manner that is consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

The cleanup of PCB contamination consisted of a concrete floor removal action and was conducted in accordance with the regulatory agency-approved *Cleanup Plan for a Polychlorinated Biphenyl Site at Building 84A, Eastern Early Transfer Parcel, Mare Island, Vallejo, California* (Cleanup Plan) (CH2M HILL 2004). The objectives of the 2004 cleanup action were achieved, and Building 84A UL#01 meets the criteria for permanent site closure.

The rest of this document is divided as follows: Section 2.0 provides a description of the site background and previous sampling efforts, and Section 3.0 provides a description of the removal action performed at Building 84A UL#01 in September 2004, including a description of concrete removal and subsequent verification sampling activities and results. Section 4.0 provides the rationale for site closure, and Section 5.0 provides conclusions for this document. Section 6.0 provides references used in the preparation of this document.

2.0 PCB Site Identification and Background

Based on review of historical records and analytical results for additional sampling, one PCB site has been identified at Building 84A, located in Investigation Area (IA) D1. PCB site Building 84A UL#01 is a stain-specific location on the concrete/tile floor inside of Building 84A. The source of the stain is unknown.

In February 1995, Supervisor of Shipbuilding Portsmouth (SSPORTS) personnel collected three samples from concrete, five samples from tile, and one metal sample from Building 84A, as shown in Table 2-1. These samples were a combination of solid and wipe samples. Data from two of the three concrete samples were missing from the Navy files, and therefore the PCB concentrations for those sample locations are unknown. The PCB concentration in the third concrete sample was 0.73 micrograms per 100 square centimeters ($\mu\text{g}/100\text{ cm}^2$). PCBs were not detected in the tile samples above the laboratory reporting limits, and PCBs were detected in the metal sample at a concentration of 1.12 milligrams per kilogram (mg/kg) (Table 2-1).

As there were no analytical data reports available in the Navy files to confirm some of these sample results, CH2M HILL performed additional sampling and laboratory analysis in April 2004 to replace the missing sample results for the two concrete samples. In April 2004, CH2M HILL collected two concrete samples from approximately the same locations as the previous two concrete samples with missing data. PCB concentrations in these two samples were 0.867 mg/kg and 1.72 mg/kg, respectively, as shown in Table 2-1. In addition, CH2M HILL collected one metal wipe sample from the approximate location of the previous metal sample, as the units of the previous results (mg/kg) did not correspond with the medium (i.e., PCB samples for metals are usually collected as wipe samples with units of $\mu\text{g}/100\text{ cm}^2$). During an April 2004 site visit, there was no visible evidence that SSPTS collected solid samples from the metal. PCBs were not detected above the laboratory reporting limit in the CH2M HILL metal wipe sample.

Figure 2-1 shows the previous sampling locations and the analytical results for each sample. A summary of the PCB results are shown in Table 2-1. (Complete analytical data were provided in Attachment A of the Cleanup Plan [CH2M HILL 2004].)

TABLE 2-1

Sample Results for Building 84A UL#01 – February 1995 and April 2004

PCB Site Building 84A, Investigation Area D1, Mare Island, Vallejo, California

Sample Number	Sample Matrix	Sample Date	PCB Concentration	Comments
4357-0070	Tile	02/1995	ND (<0.1 µg/100 cm ²)	
4357-0071	Concrete	02/1995	Unknown	
4357-0072	Concrete	02/1995	Unknown	
4357-0073	Metal	02/1995	1.12 mg/kg	Result in mg/kg units does not match media and observations during April 2004 site visit.
4357-0064	Tile	02/1995	ND (<0.1 µg/100 cm ²)	
4357-0065	Concrete	02/1995	0.73 µg/100 cm ²	
4357-0067	Tile	02/1995	ND (<0.1 µg/100 cm ²)	
4357-0068	Tile	02/1995	ND (< 0.1 mg/kg)	Result in mg/kg units does not match media and observations during April 2004 site visit.
4357-0069	Tile	02/1995	ND (<0.1 µg/100 cm ²)	
B84A-0072-C0	Concrete	04/2004	0.867 mg/kg	Resample of location 4357-0071
B84A-0073-C0	Concrete	04/2004	1.72 mg/kg	Resample of location 4357-0072
B84A-0074-W0	Metal	04/2004	ND (<0.33 µg/100 cm ²)	Resample of location 4357-0073

Notes:

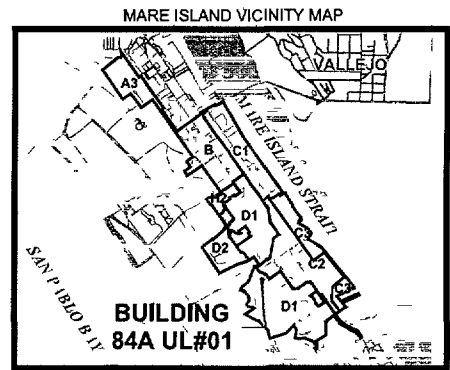
UL = Unknown Location.

mg/kg = milligrams per kilogram.

µg/100 cm² = micrograms per 100 square centimeters.

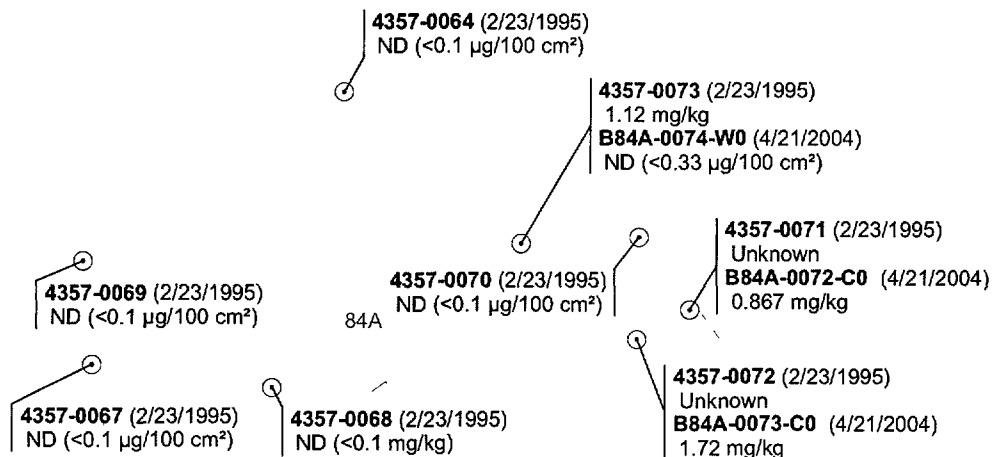
ND = not detected (laboratory reporting limit in parenthesis).

1240



4357-0065 (2/23/1995)
0.73 ($\mu\text{g}/100 \text{ cm}^2$)

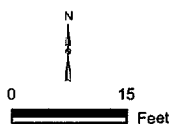
84



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LEGEND

- PCB SAMPLE LOCATIONS
(Locations Shown are Approximate)
- ROADS
- STRUCTURES



SAMPLE LOCATION ——— 4357-0070 (2/23/1995)
PCB CONCENTRATION ——— ND ($<0.1 \mu\text{g}/100 \text{ cm}^2$)
SAMPLE COLLECTION DATE ———

NOTES

1. ND = NOT DETECTED ABOVE
LABORATORY REPORTING LIMIT
2. $\mu\text{g}/100 \text{ cm}^2$ = MICROGRAMS PER 100 CENTIMETER SQUARED
3. mg/kg = MILLIGRAMS PER KILOGRAM

FIGURE 2-1 SAMPLE LOCATIONS AT BUILDING 84A UL#01

INVESTIGATION AREA D1
LENNAR MARE ISLAND, VALLEJO, CALIFORNIA

CH2MHILL

3.0 2004 Removal Action Summary

The concrete floor removal action at Building 84A UL#01 was conducted on September 28 and 29, 2004, in accordance with the Cleanup Plan (CH2M HILL 2004). The objective of the cleanup action was to remove PCB-impacted concrete at the one location where the PCB concentration exceeded the cleanup goal of 1 mg/kg (B84A-0073-C0 at 1.72 mg/kg), as shown on Table 2-1 and Figure 2-1. The cleanup action area also included the adjacent sample location B84A-0072-C0 (0.867 mg/kg). Analytical data sheets for the verification sampling are included in Appendix A. Photo documentation of the 2004 removal action is presented in Appendix B.

The entire thickness of PCB-impacted concrete was removed from a 4-foot by 12-foot area (48 square feet) around B84A-0072-C0 and B84A-0073-C0 in Building 84A UL#01. The thickness of the concrete floor ranged from approximately three to four inches. While performing the concrete removal action, a void beneath the concrete removal area was encountered. The void is approximately 4 feet below the bottom of the concrete floor removal area and has a soil surface. The void is likely a crawl space beneath the building and only contains piping. No asbestos piping or insulation was observed.

Before the removed concrete was replaced, three soil verification samples were collected from the bottom of the void. Figure 3-1 presents the locations of the concrete removal area and soil verification samples. The soil samples were submitted to the CH2M HILL Applied Sciences Group for analysis of PCBs by United States Environmental Protection Agency (USEPA) Method SW8082. A comprehensive list of the analytical methods, reporting limit objectives, and quality assurance/quality control requirements for samples can be found in the *Quality Assurance Project Plan* (CH2M HILL 2001). Analytical data sheets for the verification sampling are included in Appendix A and a summary of the analytical data is presented in Table 3-1.

PCBs were not detected above laboratory reporting limits in two of the three verification samples. PCBs were only detected in one verification sample (B84AUL01-0807-S0.5) at a concentration of 0.0849 mg/kg. This concentration does not exceed the soil cleanup goal (USEPA preliminary remediation goal [PRG] for residential land use) of 0.22 mg/kg and, therefore, further removal actions were not performed.

The removed concrete was directly placed into steel bins and temporarily stored on-site prior to the receipt of waste characterization sample results. The concrete was replaced and restored to the previous site conditions. A total of approximately one cubic yard of concrete was removed from Building 84A UL#01, transported off-site and disposed of at the Kettleman Hills waste disposal facility, located in Kettleman City, California. Appendix C provides the hazardous waste manifest for the transport and disposal of this waste.

TABLE 3-1

PCB Verification Sampling Results at Building 84A UL#01

PCB Site Building 84A, Investigation Area D1, Mare Island, Vallejo, California

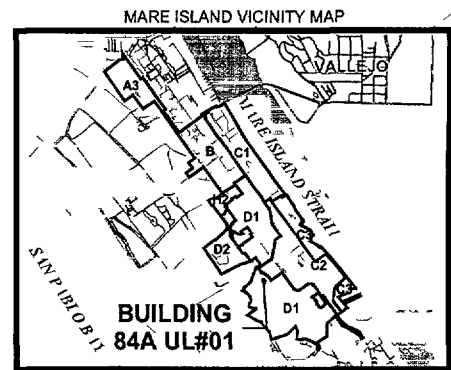
Verification Sample Number	Aroclor-1260 Concentration ^a (mg/kg)	Sample Date	Sample Location
B84AUL01-0805-S0.5	ND (< 0.0361)	09/30/2004	Soil beneath western end of concrete removal area
B84AUL01-0806-S0.5	ND (< 0.0313)	09/30/2004	Soil beneath central portion of concrete removal area
B84AUL01-0807-S0.5	0.0849	09/30/2004	Soil beneath eastern end of concrete removal area

Notes:

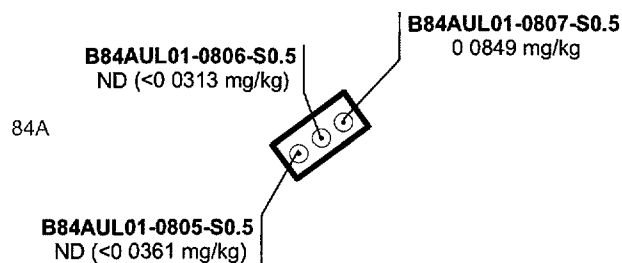
^a All other Aroclors were not detected above laboratory reporting limits.

ND = not detected (laboratory reporting limit)

1240



84



LEGEND

- PCB VERIFICATION SAMPLE LOCATIONS
(Locations Shown are Approximate)
- APPROXIMATE LOCATION OF CONCRETE REMOVAL
ROADS
STRUCTURES

SAMPLE LOCATION ————— **B84AUL01-0805-S0.5**
PCB CONCENTRATION ————— ND (<0.0361 mg/kg)
SAMPLE COLLECTION DATE —————

0 15
Feet



NOTES

- 1 ND = NOT DETECTED ABOVE
LABORATORY REPORTING LIMIT
- 2 mg/kg = MILLIGRAMS PER KILOGRAM

FIGURE 3-1 PCB VERIFICATION SAMPLING RESULTS AT BUILDING 84A UL#01

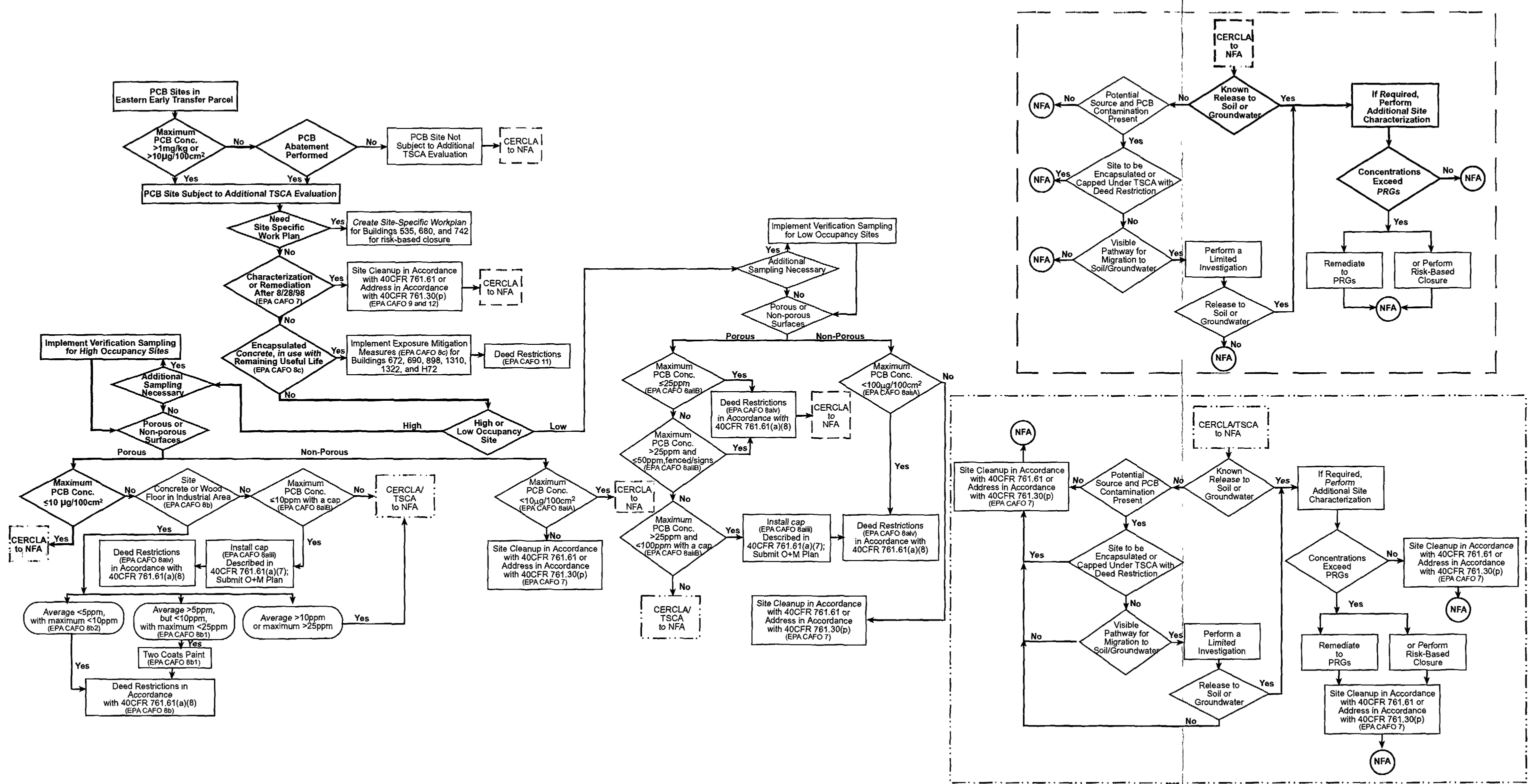
INVESTIGATION AREA D1
LENNAR MARE ISLAND, VALLEJO, CALIFORNIA

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4.0 PCB Site Closure Process

The *Final Polychlorinated Biphenyl Work Plan* (CH2M HILL 2003) illustrates the process for PCB site closure under CERCLA and the Toxic Substances Control Act (TSCA). Under CERCLA, No Further Action (NFA) is appropriate at a PCB site if there is no potential source and no PCB contamination present at the site (CH2M HILL 2003). However, even if there is a potential source or PCB contamination present in machinery or building materials, NFA under CERCLA is appropriate at a site if there is no release of PCBs to soil or groundwater, nor any visible pathway for migration of PCBs to soil and/or groundwater (CH2M HILL 2003). Such sites will be evaluated under TSCA for site closure in accordance with the USEPA Consent Agreement/Final Order (USEPA et al. 2001). If there is a known release to soil or groundwater, then NFA is also appropriate if the site is adequately characterized and the detected PCB concentrations in soil and groundwater do not exceed the applicable PRG, or if results of a site-specific risk evaluation demonstrate that potential risks associated with exposure to residual PCBs are within the risk-management range generally used to determine if cleanup is necessary. In compliance with this process, Figure 4-1 provides a flowchart illustrating the PCB site closure process, with the path for Building 84A UL#01 highlighted.

At Building 84A UL#01, a source of PCBs does not exist. (The concrete containing concentrations of PCBs that exceeded the USEPA PRG for residential land use was removed.) The site has been characterized through two tile samples, eight concrete samples, and two metals samples (SSPORTS in 1995 and CH2M HILL in 2004). PCB-impacted concrete (i.e., concrete with concentrations of PCBs greater than 1 mg/kg) was removed in 2004, as documented in Section 3.0 above. The soil verification sampling results from below the removed concrete floor indicate that concentrations of PCBs in soil beneath the PCB-impacted concrete either are not detected above laboratory reporting limits or do not exceed the soil cleanup goal of 0.22 mg/kg. Therefore, NFA under CERCLA is considered appropriate for this site.



Notes: EPA CAFO # = EPA Consent Agreement and Final Order paragraph number
 NFA = No further action
 O+M = Operations and Maintenance

**FIGURE 4-1
 PATH FOR PCB SITE CLOSURE
 AT BUILDING 84A UL#01
 LENNAR MARE ISLAND, VALLEJO, CALIFORNIA**

5.0 Conclusions

In February 1995, SSPTS personnel collected samples from concrete, tile, and metal from Building 84A UL#01. As there were no analytical data reports available in the Navy files to confirm some of these sample results, CH2M HILL performed additional sampling to replace the missing sample results for two concrete samples and one metal sample. In April 2004, CH2M HILL collected two concrete samples from approximately the same locations as the previous two concrete samples with missing data. PCB concentrations in one of the concrete samples exceeded 1 mg/kg. Concrete removal actions were conducted at this location within Building 84A UL#01 to remove PCB concentrations in concrete that exceeded 1 mg/kg.

Verification sampling results following the concrete removal action showed a maximum remaining PCB concentration of 0.0849 mg/kg in the soil beneath the removal area. The maximum remaining PCB concentration in a wipe sample on the building floor at Building 84A UL#01 is 0.73 µg/100 cm².

NFA under CERCLA is appropriate for Building 84A UL#01 because: 1) the source of the PCBs at Building 84A UL#01 no longer exists; 2) the site was adequately characterized in 1995 and 2004; and 3) remaining concentrations of PCBs in soil are less than 0.22 mg/kg. An NFA under CERCLA would be protective of human health and the environment at Building 84A UL#01. Consequently, it is requested that DTSC issue an NFA determination for Building 84A UL#01.

6.0 References

CH2M HILL. 2001. *Final Quality Assurance Project Plan*. November.

_____. 2003. *Final Polychlorinated Biphenyl Work Plan*. March 7.

_____. 2004. *Cleanup Plan for a Polychlorinated Biphenyl Site at Building 84A Located Within Investigation Area D1, Eastern Early Transfer Parcel, Mare Island, Vallejo, California*. August.

Lennar Mare Island, the City of Vallejo, and the State of California, Environmental Protection Agency Department of Toxic Substances Control. 2001. *Consent Agreement between Lennar Mare Island, the City of Vallejo, and the State of California, California Environmental Protection Agency Department of Toxic Substances Control*. April 16.

United States Environmental Protection Agency, United States Department of the Navy, the City of Vallejo, and Lennar Mare Island. 2001. *Complaint/Consent Agreement and Final Order between Lennar Mare Island, the City of Vallejo, the U.S. Department of the Navy, and the U.S. Environmental Protection Agency Region IX*. EPA Docket No. TSCA-9-2002-0002. December 20.

Appendix A

2004 Removal Action Analytical Data

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1A
ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

B84AUL01-0805-S0.5

Lab Name: CH2M HILL/LAB/CVO

Contract #: 920594.OTC

Lab Code: CVO

Case No.: D4223

SAS No.: D4223

Matrix: SOIL

SDG No.: D4223

Lab Sample ID: D422301

Sample Amt.: 10.018 g

Lab File ID: 007F0701.D

% Moisture: 9

Decanted: Y

Date Received: 10/01/04

Extraction: Sonic

Date Extracted: 10/01/04

Extract Vol.: 5 ml

Date Analyzed: 10/01/04

Injection Vol.: 3.0 ul

Dilution Factor: 1

GPC Cleanup: N

Sulfur Cleanup: Y

Concentration Units: ug/Kg

CAS #	Analyte	MDL	PQL	Result	Confirm	Q
12674-11-2	PCB-1016	2.51	36.1	36.1		U
11104-28-2	PCB-1221	10.4	36.1	36.1		U
11141-16-5	PCB-1232	6.88	36.1	36.1		U
53469-21-9	PCB-1242	4.32	36.1	36.1		U
12672-29-6	PCB-1248	5.14	36.1	36.1		U
11097-69-1	PCB-1254	2.68	36.1	36.1		U
11096-82-5	PCB-1260	2.68	36.1	36.1		U

Surrogate	% Rec.	QC Limits	Qualifier
Decachlorobiphenyl	93.9	25-143	

Comments:

Possible technical chlordane contamination.

1A
ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

B84AUL01-0806-S0.5

Lab Name: CH2M HILL/LAB/CVO

Contract #: 920594.OTC

Lab Code: CVO

Case No.: D4223

SAS No.: D4223

Matrix: SOIL

SDG No.: D4223

Lab Sample ID: D422302

Sample Amt.: 11.368 g

Lab File ID: 008F0801.D

% Moisture: 7

Decanted: Y

Date Received: 10/01/04

Extraction: Sonic

Date Extracted: 10/01/04

Extract Vol.: 5 ml

Date Analyzed: 10/01/04

Injection Vol.: 3.0 ul

Dilution Factor: 1

GPC Cleanup: N

Sulfur Cleanup: Y

Concentration Units: ug/Kg

CAS #	Analyte	MDL	PQL	Result	Confirm	Q
12674-11-2	PCB-1016	2.18	31.3	31.3		U
11104-28-2	PCB-1221	9.05	31.3	31.3		U
11141-16-5	PCB-1232	5.97	31.3	31.3		U
53469-21-9	PCB-1242	3.75	31.3	31.3		U
12672-29-6	PCB-1248	4.46	31.3	31.3		U
11097-69-1	PCB-1254	2.32	31.3	31.3		U
11096-82-5	PCB-1260	2.32	31.3	31.3		U

Surrogate	% Rec.	QC Limits	Qualifier
Decachlorobiphenyl	93.9	25-143	

Comments:

Possible technical chlordane contamination.

1A
ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

B84AUL01-0807-S0.5

Lab Name: CH2M HILL/LAB/CVO

Contract #: 920594.OTC

Lab Code: CVO

Case No.: D4223

SAS No.: D4223

Matrix: SOIL

SDG No.: D4223

Lab Sample ID: D422303

Sample Amt.: 11.064 g

Lab File ID: 009F0901.D

% Moisture: 8

Decanted: Y

Date Received: 10/01/04

Extraction: Sonc

Date Extracted: 10/01/04

Extract Vol.: 5 ml

Date Analyzed: 10/01/04

Injection Vol.: 3.0 ul

Dilution Factor: 1

GPC Cleanup: N

Sulfur Cleanup: Y

Concentration Units: ug/Kg

CAS #	Analyte	MDL	PQL	Result	Confirm	Q
12674-11-2	PCB-1016	2.26	32.4	32.4		U
11104-28-2	PCB-1221	9.39	32.4	32.4		U
11141-16-5	PCB-1232	6.19	32.4	32.4		U
53469-21-9	PCB-1242	3.88	32.4	32.4		U
12672-29-6	PCB-1248	4.62	32.4	32.4		U
11097-69-1	PCB-1254	2.41	32.4	32.4		U
11096-82-5	PCB-1260	2.41	32.4	84.9	73.7	

Surrogate	% Rec.	QC Limits	Qualifier
Decachlorobiphenyl	87.7	25-143	

Comments:

Appendix B

2004 Removal Action Photo Documentation



Photo 1. Void underneath concrete removal area, Building 84A UL#01



Photo 2. Building 84A UL#01 concrete removal area, looking east (spray paint indicates verification sample locations)

Appendix C

2004 Removal Action Hazardous Waste Manifest

23-40303
IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7557

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address GENNAR MARE ISLAND 600 WALNUT AVENUE, SUITE 100 MARE ISLAND, CALIF. 94042 4. Generator's Phone (707) 552-4000		6. US EPA ID Number C A 2 0 0 0 1 1 2 3 1 1 1		A. State Manifest Document Number 23840303	
5. Transporter 1 Company Name NRC ENVIRONMENTAL SERVICES		8. US EPA ID Number C A 2 0 0 0 1 1 2 3 1 1 1		B. State Generator's ID 	
7. Transporter 2 Company Name		10. US EPA ID Number		C. State Transporter's ID (Reserved)	
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT 35251 OLD SKYLINE RD. KUTLERMAN HILLS, CA 94239		12. Containers No. Type		D. Transporter's Phone (510) 749-1300	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) a. POLYCHLORINATED BIPHENYLS, SOLID, 9, UN2815, PG1		13. Total Quantity 02155		E. State Transporter's ID (Reserved)	
b.		14. Unit K		F. Transporter's Phone	
c.		15. Waste Number 261		G. State Facility's ID C A 2 0 0 0 1 1 2 3 1 1 1	
d.		16. EPA/Other N/A		H. Facility's Phone (559) 386-9711	
17. Additional Descriptions for Materials Listed Above TATC5082 CRC171 (1x20Y BIN) BIN# 3158		K. Handling Codes for Wastes Listed Above a. b. c. d.			
15. Special Handling Instructions and Additional Information WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT 24 HOUR CONTACT: NRCES 1-800-33-SPILL JOBS#A40731 R08A40731 B521 1155 Kilo. B521 7 B84A-1000 Kilo.					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name ROBERT LONG M. LLC		Signature Robert Long		Month Day Year 10/12/94	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name ROBERT R. BROWN		Signature Robert R. Brown		Month Day Year 10/12/94	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name		Signature		Month Day Year	

DO NOT WRITE BELOW THIS LINE.